

AMENDMENTS TO CLAIMS

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:
 - an elongate hollow body,
 - a distal opening in the region of the distal end of the hollow body for receiving tissue, and
 - an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,characterised in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and characterized in that the cutting element is in the form of a wire loop whose both ends are secured to two separate guide elements which are guided slidably at the outside surface of the hollow body in longitudinal grooves parallel to the longitudinal axis of the hollow body .
5. (Previously presented) A surgical hollow probe according to Claim 4 characterized in that the distal opening is provided in a peripheral wall of the hollow body between the longitudinal grooves .
6. (Cancelled)
7. (Cancelled)

8. (Previously presented) A surgical hollow probe according to claim 4 characterized in that the distal opening of the hollow body is adjacent to one of the longitudinal grooves.

9. (Cancelled)

10. (Previously presented) A surgical hollow probe according to claim 4 characterized in that the guide elements are in the form of thrust rods which extend from the distal end to the proximal end of the hollow body and which are supported slidably and rotatably in the longitudinal grooves .

11. (Cancelled)

12. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterised in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and characterized in that provided at at least one of the distal or proximal ends of the displacement travel, in the peripheral wall of the hollow body is a gap through which the cutting element is adapted to extend from and retract into the hollow body .

13. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterised in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body, and characterized in that the distal opening is closable by means of a closure .

14. (Previously presented) A surgical hollow probe according to Claim 13 characterized in that the closure is mounted displaceably in at least one of the radial or axial directions along a peripheral wall of the hollow body .

15. (Cancelled)

16. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising

an elongate hollow body, having a distal end region and a proximal end region,
a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterised in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and

characterised by a suction removal device which is adapted to be connected to the proximal end of the hollow probe for sucking the cut-out tissue into the distal opening and for sucking the tissue away through the hollow passage of the hollow body to a proximal opening in the region of the proximal end of the hollow probe; and

characterized in that the hollow body includes a separate suction air passage which extends from the connection of the suction removal device in the longitudinal direction to the distal opening and which is in suction communication over an entire length thereof with the hollow passage of the hollow body by way of suction openings.

17. (Currently amended) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterised in that the cutting element is adapted to be ~~extended from or~~ pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and characterized in that the cutting element is slidably guided on the hollow body in parallel to the longitudinal axis of the hollow body; and

characterized in that the distal end of the hollow probe converges to a point.

18. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterized in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and

characterized in that an electrode is arranged on a surface of the hollow body in the region of the distal end and characterized in that an HF-voltage source is adapted to be connected with one terminal to the electrode and with a second terminal to the cutting element, in order locally to limit the HF-current through the tissue.

19. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be extended from the hollow body and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterized in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and characterized in that arranged on a surface of the hollow body in the region of the distal end are a first electrode and at an axial spacing a second electrode, to which HF-voltage is adapted to be applied in order to heat adjoining tissue upon insertion of the probe.

20. (Previously presented) A surgical hollow probe according to claim 19 characterized in that the first electrode and the second electrode are of a cylindrical shape around the longitudinal axis.

21. (Previously presented) A surgical hollow probe according to claim 19 characterized in that at least one of the first and second electrodes are axially displaceable.

22. (Previously presented) A surgical hollow probe according to claim 19, characterized in that the second electrode is arranged on a sleeve which is axially displaceable on the hollow body.

23. (Previously presented) A surgical hollow probe according to claim 19 characterised in that at least one of the first electrode and the second electrode serves as a counterpart electrode for the cutting element.

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Previously presented) A surgical hollow probe for minimally invasive tissue removal, comprising:

an elongate hollow body,

a distal opening in the region of the distal end of the hollow body for receiving tissue, and

an electrically conductive ring-shaped or loop-shaped cutting element is adapted to be pivoted out from the hollow body transversely therefrom and is adapted to be applied to an HF-voltage source, for electrosurgically cutting out tissue in the area around the distal opening of the hollow body,

characterised in that the cutting element is adapted to be extended from or pivoted out of the hollow body transversely with respect to the longitudinal axis of the hollow body and is then displaceable outside the hollow body along the hollow body; and characterized in that the cutting element is slidably guided on the hollow body in parallel to the longitudinal axis of the hollow body; and

characterised in that the cutting element is in the form of a wire loop whose both ends are secured to a common guide element which is guided slidably at the outside surface of the hollow body in a longitudinal groove parallel to the longitudinal axis of the hollow body .

28. (Previously presented) A surgical hollow probe according to claim 27 characterised in that the distal opening of the hollow body is adjacent to the longitudinal groove.

29. (Previously presented) A surgical hollow probe according to claim 27, characterized in that the guide elements are in the form of a thrust rod which extends from the distal end to the proximal end of the hollow body and which is supported slidably and rotatably in the longitudinal groove.